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ABSTRACT

By utilizing currently available data from various sources, this report presents an initial overview and analysis of the collegiate educational opportunities available to high school students in Connecticut. It presents relevant issues for discussion and suggests future research in enhancing state public policies and vision for a more coherent and consistent PreK-16 educational system. Data are provided to address the following research questions: (1) "What kind of data are there to provide background knowledge of Connecticut's collegiate opportunities?"; (2) "What is the overall picture of collegiate educational opportunities for high school students in Connecticut?"; and (3) "What further research steps need to be taken to have a more comprehensive understanding of the issue?" (Contains 14 notes and 12 tables.) (EV)

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ED 481 686

# Connecticut High School Students Attending Colleges and Universities

**Board of Governors for Higher Education**

**Department of Higher Education**

**State of Connecticut**

**June 2003**

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# Report

June 2003

Board of Governors for Higher Education
Department of Higher Education
State of Connecticut

## CONNECTICUT HIGH SCHOOL STUDENTS ATTENDING COLLEGES AND UNIVERSITIES[1]

### EXECUTIVE SUMMARY

On the basis of the *currently* available data, this report will present the following information:

- The number of Connecticut public school students enrolled in college-level courses has significantly risen, from 12,905 in 1997-1998 to 19,154 in 2001-2002, which represents a 48% increase.
- The number of high school graduates who have received college-level course credits has risen from 6,400 (23% of the total 27,885 graduates) in 1998 to 9,131 (28% of the total 32,192 graduates) in 2002. The minority student participation rate ranged between 15% in 1999 and 18% in 2002.
- The duplicated count of Connecticut public high school students taking the Advanced Placement (AP) tests has risen from 6,556 in 1997-1998 to 11,056 in 2001-2002, which represents a 69% increase.
- The duplicated count of Connecticut public high school students receiving college-level course credits other than those from the AP Program has risen from 7,572 in 1997-1998 to 11,350 in 2001-2002, which represents a 50% increase.
- Between the 1997-1998 and 2000-2002 school years, an average of 2,201 students participated in the ConnCAP program each year.
- Between the 2000-2001 and 2001-2002 school years, an average of 4,594 students participated in the Community Colleges' Tech Prep Program each year.
- The number of Connecticut public high school students enrolled in the University of Connecticut High School Cooperative Program has risen from 1,186 in 1999-2000 academic year to 3,292 in the 2001-2002 academic year.
- The Connecticut Community College System had 344 students enrolled in its high school partnership program, 22% were minority students.

[1] This report is made possible by the assistance from the Board of Trustees of the Connecticut Community College System (Corby Coperthwaite, Dennis Jones, Paul Susen), Central Connecticut State University (Pearl Bartelt), Connecticut State Department of Education (Patricia Brandt, Ann Gaulin, Ann Marie Lenkiewicz, Peter Prowda, Norma Sinclair, Mary Skelly, Allison Zhou), Eastern Connecticut State University (Dimitrios Pachis, Carol White, Carol Williams), Saint Joseph's College (W. Clark Hendley), Southern Connecticut State University (Patricia Whelan), University of Connecticut (Karen Craig, Michael Menade), University of Hartford (R. J. McGivney, Donna Randall), Wesleyan University (Greg Pyke), Western Connecticut State University (Eugene Buccini), and Jean Krulic.

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- During the 1999-2000 school year, 833 students enrolled in courses at all other Connecticut colleges and universities.

## INTRODUCTION

As the nation continues to debate the quality of PreK-12 education and the accountability of higher education, there is an emerging recognition that institutions of higher education and PreK-12 schools must collaborate sufficiently with each other to align academic content, admission procedures, and expectations for students; and there have to be coordinated and critical reviews and reform of high school and early college curricula.[2]

Connecticut has enjoyed a national reputation for its educational endeavors. The National Assessment of Education Progress (NAEP) has placed Connecticut students at the top of the achievement list[3]: first in mathematics, Grade Four (tied with 11 other states), 2000; first in writing, Grade Eight, 1999; first in reading, Grade Four and Eight (tied with three other states), 1998, and first in mathematics, Grade Four (tied with two other states), 1996.

Connecticut's public and independent colleges and universities awarded a total of 29,687 degrees in the 2000-2001 academic year, reflecting an increase of 3.5% from the 1990-1991 academic year[4]. In the fall of 2002, there were more students than ever attending Connecticut's colleges and universities, especially undergraduates studying full-time. Many students are choosing the state's community colleges, which account for more than 40% of the surge. Overall, a record 169,587 students are enrolled across the state's 46 public and independent institutions of higher learning an increase of 4,910 students or 3.5% more than last year. This is the fifth year of consecutive growth, and it surpasses the previous peak of 169,132 set in 1989. These are the largest one-year gains in at least 25 years. [5]

The question, however, remains as to how much collaboration and curriculum alignment there are between the state's PreK-12 education system and the postsecondary education institutions in Connecticut. By utilizing currently available data from various sources, this report presents an initial overview and analysis of the collegiate educational opportunities available to high school students in Connecticut. It will present relevant issues for discussion and will suggest future research in enhancing state public policies and vision for a more coherent and consistent PreK-16 educational system.

## RESEARCH QUESTIONS

The State of Connecticut does not have a statewide mechanism that coordinates and promotes collegiate educational opportunities for high school students. A 2000 Connecticut Department of Higher Education preliminary inquiry[6] to the state's 46 public and independent institutions of higher education revealed that none of them coordinated the Advanced Placement (AP) courses, which were administered by local school districts through the authorization of the College Board. The result of the same inquiry also indicated that the majority of the state's community colleges work with their regional school

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[2] National Commission on the High School Senior Year (2001a). *The lost opportunity of senior year: Finding a better way.* Princeton: The Woodrow Wilson National Fellowship Foundation. P. 32.

[3] National Center for Education Statistics (NCES, 2002). *Cross-state comparisons, average scale score: Connecticut.* See http://nces.ed.gov/nationsreportcard/states/statecompare.asp?state=CT.

[4] State of Connecticut Board of Governors for Higher Education (2002). *Connecticut colleges produce steady supply of graduates but degrees lag in science and nursing.* Hartford: Author. March 6. P. 1.

[5] Data Source: Connecticut Department of Higher Education.

[6] Connecticut Department of Higher Education (2000). *Survey of college credit opportunities available to Connecticut secondary school students (Form).* Hartford, CT: Author.

districts to offer the Tech Prep programs. Finally, individual two- or four-year institutions have conducted various programs for high school students on their own.

As part of the development of a statewide coordinated effort to promote and evaluate collegiate educational opportunities for high school students, it may be helpful to examine the follow questions:

- What kind of data are there to provide background knowledge of such opportunities?
- What is the overall picture of collegiate educational opportunities for high school students in Connecticut?
- What further research steps need to be taken to have a more comprehensive understanding of the issue?

## DATA COLLECTION

**Research Question 1: What kind of data are there to provide background knowledge of such opportunities?**

This report examines *currently* available data from various state sources, including the Board of Trustees of the Connecticut Community College System, Connecticut Department of Higher Education, Connecticut State Department of Education, Connecticut State University System, and the University of Connecticut. The following data have been used in this report:

- The Connecticut State Department of Education annual AP examination reports between the 1997-1998 and 2001-2002 academic years;
- The Connecticut State Department of Education graduating class report data from 1997-1998 to 2001-2002 academic year (Form ED 540);
- The Connecticut State Department of Education public school student enrollment data by education reference groups[7] from 1997-1998 to 2001-2002 academic year;
- The Connecticut Department of Higher Education *Annual Report on Strategic Plan to Ensure Racial and Ethnic Diversity in Connecticut Public Higher Education* (1998-2002);
- The Connecticut State Department of Education 2000-2001 Tech Prep program data;
- The Connecticut Community College System 2001-2002 Tech Prep program data and related information from the Connecticut State Department of Education;
- The University of Connecticut high school cooperative program data;
- The Connecticut Department of Higher Education *Survey of College Credit Opportunities Available to Connecticut Secondary School Students* (1999-2000);
- Data and reports from various colleges and universities.

## DATA ANALYSIS

**Research Question 2: What is the overall picture of collegiate educational opportunities for high school students in Connecticut?**

[7] The term "Education Reference Groups (ERGs)" refers to a classification of the state's public school districts into groups based on similar socioeconomic status and need for families with children in public schools. ERG I is the state's most high-need group, which includes districts of Bridgeport, Hartford, New Britain, New Haven, New London, Waterbury, and Windham.

The number of Connecticut public high school students enrolled in college-level courses has significantly risen from 12,905 in 1997-1998 to 19,154 in 2001-2002 school years. This reflects an 48% increase within these academic years (see Table 1). While the majority of students statewide have enrolled in four-year college courses (13,805 of 19,154, 72% in 2002), the majority of students from Education Reference Group I (ERG I) (876 of 1,632, 54% in 2002) have enrolled in two-year college courses. Although there is a slight increase of the state overall enrollment in college-level courses from 11.5% to 12.0% of all public high school students, there is a drop of ERG I students enrolled in college-level courses from 9.4% of enrollment in 2000-2001 school year to 7.3% in 2001-2002 school year.

Table 1. Unduplicated count of Connecticut public high school students (9-12 grades) enrolled in college-level courses (1997-2002)

| Year | Total Enrollment in Two-Year College Courses* (% in Total High School Enrollment) | ERG I Enrollment in Two-Year College Courses** (% in Total ERG I High School Enrollment) | Total Enrollment in Four-Year College Courses (% in Total High School Enrollment) | ERG I Enrollment in Four-Year College Courses (% in Total ERG I High School Enrollment) | Total College-Level Course Enrollment (% in Total High School Enrollment) | Total ERG I College-Level Course Enrollment (% in Total ERG I High School Enrollment) | Total High School (9-12th Grades) Enrollment | Total ERG I High School (9-12th Grades) Enrollment |
|---|---|---|---|---|---|---|---|---|
| 2001-2002 | 5,349 (3.3%) | 876 (3.9%) | 13,805 (8.6%) | 756 (3.4%) | 19,154 (12.0%) | 1,632 (7.3%) | 160,229 | 22,414 |
| 2000-2001 | 5,163 (3.3%) | 1,367 (6.4%) | 12,444 (8.3%) | 638 (3.0%) | 17,607 (11.5%) | 2,005 (9.4%) | 155,704 | 21,367 |
| 1999-2000 | 4,344 (2.9%) | 886 (4.3%) | 11,365 (7.6%) | 599 (2.9%) | 15,709 (10.5%) | 1,485 (7.2%) | 150,081 | 20,744 |
| 1998-1999 | 3,824 (2.6%) | 648 (3.2%) | 10,292 (7.1%) | 594 (2.9%) | 14,116 (9.7%) | 1,242 (6.1%) | 145,260 | 20,245 |
| 1997-1998 | 3,587 (2.5%) | 817 (4.1%) | 9,318 (6.6%) | 501 (2.5%) | 12,905 (9.2%) | 1,318 (6.5%) | 140,811 | 20,142 |

*Source: Connecticut State Department of Education*
*Two-year college courses include Tech Prep, Child Development type of programs typically associated with a two-year college program.
** Four-year college courses include the Advanced Placement Program and programs in cooperation with four-year colleges.

The number of high school graduates who have received college-level course credits has risen from 6,400 (23% of the total 27,885 graduates) in 1998 to 9,131 (28% of the total 32,192 graduates) in 2002 (see Tables 2 and 3). The minority student participation rate ranged between 15% in 1999 and 18% in 2002.

Table 2. Connecticut high school graduates (1998-2002)

| Year | Total Graduates | Native American | Asian American | Non-Hispanic Origin | | Hispanic | Minority Percentage |
|---|---|---|---|---|---|---|---|
| | | | | Black | White | | |
| 2002 | 32,192 | 74 | 1,024 | 3,617 | 24,594 | 2,883 | 23.6% |
| 2001 | 30,388 | 64 | 913 | 3,390 | 23,471 | 2,550 | 22.8% |
| 2000 | 29,610 | 79 | 908 | 3,208 | 22,901 | 2,514 | 22.7% |
| 1999 | 28,284 | 67 | 792 | 2,921 | 22,242 | 2,262 | 21.4% |
| 1998 | 27,885 | 63 | 795 | 3,154 | 21,607 | 2,266 | 22.5% |

*Source: Connecticut State Department of Education*



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Table 3. Connecticut high school graduates receiving college credits (1998-2002)

| Year | Total Graduates Receiving College Credits | Native American | Asian American | Non-Hispanic Origin | | Hispanic | Minority Percentage | Percentage of Graduates Receiving College Credits within Total Graduates | Percentage of Minority Graduates Receiving College Credits within Total Graduates |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Black | White | | | | |
| 2002 | 9,131 | 13 | 450 | 600 | 7,478 | 590 | 18.1% | 28.4% | 5.1% |
| 2001 | 8,099 | 11 | 395 | 560 | 6,647 | 486 | 17.9% | 26.7% | 4.8% |
| 2000 | 7,013 | 7 | 366 | 343 | 5,886 | 411 | 16.1% | 23.7% | 3.8% |
| 1999 | 6,526 | 3 | 325 | 347 | 5,539 | 312 | 15.1% | 23.1% | 3.5% |
| 1998 | 6,400 | 8 | 306 | 426 | 5,314 | 346 | 17.0% | 22.9% | 3.9% |

*Source: Connecticut State Department of Education*

## AP in Connecticut

The duplicated count of Connecticut public school students taking the AP tests has steadily risen in the last five years, from 6,556 in the 1997-1998 school year to 11,056 in the 2001-2002 school year. Among all public school student participants, the minority student test taking rate has risen from 17% in 1997-1998 school year to 19% in 2001-2002 school year (see Table 4).

Nationally, Connecticut students have performed well on the AP tests. The average percentage of Connecticut students who scored three or better ranked third in 2001 and 2002, after New Jersey and Illinois; sixth in 2000, after North Dakota, Illinois, Massachusetts, Iowa, and New Jersey; seventh in 1999 after Illinois, Montana, North Dakota, Missouri, Iowa, and New Jersey; and seventh in 1998 after Illinois, Missouri, North Dakota, Maryland, New Jersey, and Iowa. Among the test subjects in 2001, U. S. History, English Literature, Mathematics—Calculus AB, Biology, and English Language all had more than 1,000 Connecticut public school students taking the tests.

Table 4. Duplicated count of test takers in the Advanced Placement Program in Connecticut (1997-2002)

| Year | Schools | | Student Test-Takers | | Minority Test-Takers | | Public School Participation Rates | | Percent of Tests Scored 3 or Better | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | All Students | | Public School Students | |
| | Total | Public | Total | Public | Total | Public | Seniors | Juniors | State | Nation | State | Nation |
| 2001-2002 | 200 | 138 | 15,078 | 11,056 | 2,860 | 2,089 | 17.0 | 11.5 | 73.5 | 63.1 | 72.3 | 61.4 |
| 2000-2001 | 200 | 142 | 13,832 | 9,973 | 2,605 | 1,852 | 16.2 | 10.3 | 71.9 | 61.3 | 70.3 | 59.6 |
| 1999-2000 | 198 | 140 | 12,402 | 8,771 | 2,363 | 1,652 | 14.4 | 9.8 | 73.0 | 63.7 | 71.1 | 62.1 |
| 1998-1999 | 187 | 142 | 11,081 | 7,763 | 1,976 | 1,086 | 13.6 | 8.8 | 72.3 | 63.5 | 70.8 | 61.9 |
| 1997-1998 | 187 | 137 | 9,708 | 6,556 | 1,509 | 1,084 | 12.3 | 7.6 | 72.1 | 64.1 | 70.6 | 62.6 |

*Source: Connecticut State Department of Education*

## Other Collegiate Programs for Secondary School Students in Connecticut

There is no statewide uniformed policy on dual enrollment. It is up to individual schools to decide whether or not to count any credits that their students received from college-level courses towards high school graduation requirements. Students, however, do need to obtain their school's permission to participate in collegiate programs.



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The number of Connecticut student enrollments in college-level courses other than those in the AP Program has risen from 7,572 in 1998 to 11,350 in 2002 (see Table 5). The number of students receiving such credits from ERG I increased 119% between 1998 (1,109 enrollments) and 2002 (2,269 enrollments). Close to 50% of such credits are in the subject areas of Business, English, and Mathematics (see Table 6).

Table 5. Duplicated count of all high school students enrolled in college-level courses other than the Advanced Placement Program (1997-2002)

| Year | Non-AP College Credit Enrollment | ERG I Non-AP College Credit Enrollment |
|---|---|---|
| 2001-2002 | 11,350 | 2,269 |
| 2000-2001 | 9,886 | 1,931 |
| 1999-2000 | 8,188 | 1,165 |
| 1998-1999 | 8,331 | 1,038 |
| 1997-1998 | 7,572 | 1,109 |

*Source: Connecticut State Department of Education*

Table 6. Duplicated count of Connecticut public high school student enrollment in college-level courses other than the Advanced Placement Program by subject areas with over 1,000 enrollments (1997-2002)

| Year | Total Non-AP College Course Enrollment | Business | English | Mathematics | Percentage of Business, English, and Mathematics within the Total Non-AP College Course Enrollment |
|---|---|---|---|---|---|
| 2001-2002 | 11,350 | 1,711 | 1,577 | 1,972 | 46.3% |
| 2000-2001 | 9,886 | 1,952 | 1,308 | 1,651 | 49.7% |
| 1999-2000 | 8,331 | 1,580 | 1,019 | 1,344 | 47.3% |
| 1998-1999 | 8,188 | 1,507 | 1,158 | 1,159 | 46.7% |
| 1997-1998 | 7,572 | 1,369 | 1,073 | 1,001 | 45.5% |

*Source: Connecticut State Department of Education*

There are three categories of college-level programs that high school students may enroll: ConnCAP, Tech Prep, and individual college programs. The Connecticut Community College System and the Connecticut State Department of Education have collected some data for the Tech Prep Program. The data for individual college program varies from institution to institution.

*ConnCAP*

ConnCAP refers to the Connecticut Collegiate Awareness and Preparation Program. This statewide competitive grant program is designed to stimulate linkages between public institutions of higher education and targeted school districts in order to motivate and better prepare middle school and high school students who are "under-achievers" and who come from low-income families where neither parent holds a bachelor's degree.[8]

> ConnCAP programs typically provide students with six weeks in the summer of intensive instruction in English, mathematics, natural sciences, social sciences, and foreign languages. Additional activities include the study of life skills and cultures. During the school year, ConnCAP also helps students through tutoring, counseling and career exploration.

[8] Connecticut Department of Higher Education (1998, 1999, 2000, 2001, 2002). *Strategic plan to ensure racial and ethnic diversity in Connecticut public higher education.* Hartford, CT: Author.



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High school seniors and their parents receive special help with college and financial aid applications.[9]

Table 7. Rate of college attendance by ConnCAP participants (1997-2002)

| School Year | Total Number of Participants | Participants Who Are High School Seniors | Participants Who Graduated High School | Percentage of Participants Who Graduated from High School | Participants Who Are Accepted/ Enrolled in College | Percentage of Participants Who Are Accepted/ Enrolled in College | Overall Percentage of State High School Graduate Intended to Participate in Postsecondary Education |
|---|---|---|---|---|---|---|---|
| 2001-2002 | 1,986 | 229 | 222 | 96.9% | 207 | 93.2% | 79.8% |
| 2000-2001 | 2,038 | 190 | 186 | 97.9% | 175 | 94.1% | 75.3% |
| 1999-2000 | 1,970 | 222 | 218 | 98.2% | 208 | 95.4% | 75.9% |
| 1998-1999 | 2,105 | 170 | 162 | 95.3% | 146 | 90.1% | 76.6% |
| 1997-1998 | 2,905* | 180 | 172 | 95.6% | 160 | 93.0% | 75.0% |

*Source: Connecticut Department of Higher Education and Connecticut State Department of Education*
*One of the ConnCAP program changed its focus from 1998-1999 resulting the reduction of almost 900 participants.

In general, ConnCAP does not provide college level course credits to its participants. Between the 1997-1998 and 2000-2002 school years, ConnCAP had an average of 2,201 participants per year. An average of 97% of high school senior participants graduated from high school. While the annual average of 77% of Connecticut high school graduates expressed their intention of participating in postsecondary education, an annual average of 93% high school graduates who participated in ConnCAP were enrolled in colleges and universities (see Table 7).

*Tech Prep Programs in Connecticut*

Connecticut's Tech Prep Program is designed to include at least two years of secondary education and two years of postsecondary education that leads to an associate's degree or a bachelor's degree. The program is comprised of consortia involving a community college, local comprehensive high schools, regional vocational-technical schools, and business and industry. The curriculum is based on articulation agreements between a specific high school and or vocational-technical school and a specific community college. According to the Connecticut State Department of Education[10], "[t]he course pathway toward the degree or certificate, beginning in high school, is a coherent sequence and does not require repetition of the same learning outcomes. A complete Tech Prep curriculum is comprised of courses in high school math, communications, science, and career pathway course in a program of study. Where learning outcomes can be established as being identical, college credits may be awarded for the course(s)."

Connecticut Tech Prep enrollments have remained steady at 4,611 in the 2001-2002 school year and 4,577 in the 2000-2001 school year (see Tables 8, 9, and 10). In the 2001-2002 school year, the minority student enrollments is at almost 29%. During the same year, the high enrollment clusters (with over 500 enrollments) were Information Technology and Telecommunication Systems, Business and Administrative Services, Human Services, Scientific Research, Engineering, and Technical Services.

[9] Connecticut Department of Higher Education (2002). Ibid. P. 10.
[10] Connecticut State Department of Education (2002). *Carl. D. Perkins Vocational and Technical Education Act of 1998, Public Act No. 105-332, Title II – Tech Prep Education Program Narrative 2001-2002.* Hartford, CT: Author. P. 1.

## Table 8. Enrollment of the Tech Prep Program (2001-2002)

| Level* | Total | Gender | | Race/Ethnicity | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Male | Female | Unknown | American Indian or Alaska Native | Asian | Non-Hispanic Origin | | Hispanic | Minority Percentage** |
| | | | | | | | Black | White | | |
| Secondary | 4,384 | 2,023 | 2,361 | 584 | 22 | 122 | 713 | 2,540 | 403 | 28.7% |
| Postsecondary | 227 | 88 | 139 | 9 | 1 | 6 | 28 | 153 | 30 | 28.6% |

*Source: Connecticut Community College System Office*

* The secondary level refers to enrollments by Connecticut secondary school students. The postsecondary level refers to continuing enrollments by the previous Connecticut secondary school students who became community college students after their high school graduation.

** The "unknowns" are not calculated in the minority percentage.

## Table 9. Enrollment of the Tech Prep Program by subject area clusters (2001-2002)

| Subject Area Clusters | Level* | |
|---|---|---|
| | Secondary | Postsecondary |
| Agriculture and Natural Resources | 9 | 0 |
| Construction | 5 | 0 |
| Manufacturing | 164 | 2 |
| Logistics, Transportation and Distribution Services Area | 0 | 2 |
| Information Technology and Telecommunication Systems | 767 | 37 |
| Wholesale, Retail Sales and Services | 130 | 52 |
| Financial Services | 51 | 1 |
| Hospitality and Tourism | 395 | 7 |
| Business and Administrative Services | 1,066 | 25 |
| Health Services | 381 | 22 |
| Human Services | 502 | 22 |
| Arts and Communication Services | 195 | 14 |
| Legal and Protective Services | 97 | 24 |
| Scientific Research, Engineering and Technical Services | 550 | 15 |
| Education and Training Services | 57 | 3 |
| Public Administration and Government Services | 15 | 1 |
| **Total** | **4,384** | **227** |

*Source: Connecticut Community College System Office*

*Per Connecticut State Department of Education, a "Tech Prep Secondary Student" refers to a student who has indicated an intent to pursue and is enrolled in a sequential program of study that includes mathematics, science, communication and a career course within a recognized tech prep education plan that consists, at a minimum, of two years of secondary and two years of post secondary study; is carried out under a written articulation agreement; may allow the student to earn post secondary credit while in high school; and leads to a specific two-year certificate, associate degree or a bachelor's degree in a career and technical education field. A student is not counted in this data until he/she has completed the basic English, Mathematics, Science and Social Studies courses. A "Tech Prep Post Secondary Student" refers to a student who has participated in the secondary portion of a recognized tech prep education plan that consists, at a minimum, of two years of secondary and post secondary study carried out under a written articulation agreement, and which leads to a post secondary two-year certificate degree, associate degree or a bachelor's degree in a career and technical education field; and who has enrolled in the post secondary portion of that education plan. The student may have earned college credit in the high school in the areas of mathematics, science, communications and a career pathway course.

## Table 10. Enrollment of the Tech Prep Program by subject area clusters (2000-2001)

| Subject Area Clusters | Secondary |
|---|---|
| Agriculture and Natural Resources | 43 |
| Construction | 176 |
| Manufacturing | 116 |
| Logistics, Transportation and Distribution Services Area | 59 |
| Information Technology and Telecommunication Systems | 229 |
| Wholesale, Retail Sales and Services | 101 |
| Hospitality and Tourism | 255 |
| Business and Administrative Services | 1,432 |
| Health Services | 498 |
| Arts and Communication Services | 151 |
| Legal and Protective Services | 97 |
| Scientific Research, Engineering and Technical Services | 772 |



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| | |
|---|---|
| Education and Training Services | 548 |
| **Total** | **4,577** |

*Source: Connecticut State Department of Education*

*Institutional Programs*

University of Connecticut High School Cooperative Program

The University of Connecticut has the largest institutional high school cooperative program in the state. Initiated in 1955, the program is offered in over 100 schools in Connecticut (including six of the 20 high schools in Education Reference Group I in the 2001-2002 academic year). It provides high school students an opportunity to take first-year University of Connecticut courses in a high school setting. These courses are equivalent to those offered at the University's campus. The program certifies a group of over 700 dedicated high school educators to be its instructors. The unduplicated number of students has increased from 1,816 in 1999-2000 to 3,292 in 2001-2002.

Table 11. Enrollments in the University of Connecticut High School Cooperative Program (1999-2002)

| Year | High Schools in Connecticut | High Schools in the Program | High Schools in ERG I | ERG I High Schools in the Program | Total Course Enrollments | Total Number of Students (Unduplicated) |
|---|---|---|---|---|---|---|
| 2001-2002 | 175 | 105 | 20 | 6 | 7,716 | 3,292 |
| 2000-2001 | 175 | 100 | 20 | N/A | 6,743 | 3,021 |
| 1999-2000 | 175 | 101 | 20 | N/A | 5,863 | 1,816 |

*Source: Connecticut State Department of Education and the University of Connecticut High School Cooperative Program*

Connecticut Community College High School Partnership

A "High School Partnership" program is established by agreements between local comprehensive high schools or regional vocational-technical schools and a community college. It provides qualified students from these particular high schools or vocational-technical schools opportunities to enroll in regularly offered community college courses and to receive appropriate college course credits upon successful completion of the courses. These courses are free of charge for the participating students. Each participating high school decides whether or not to accept the earned college credits towards high school graduation requirements.

The Connecticut Community College high school partnership programs appear to be growing. Based on data submitted to the Connecticut Department of Higher Education in 2000 by individual community colleges, there were 259 enrollments (duplicated counts) in the program for the entire 1999-2000 academic year[11]. The Connecticut Community College System reported that a total of 344 students (unduplicated counts) enrolled in the high school partnership programs, including 76 (22%) minority students, in the Fall semester of 2002.[12]

*Other*

In 2000, the Connecticut Department of Higher Education surveyed all 46 public and independent colleges and universities in the state and received 38 responses on college credit

[11] Connecticut Department of Higher Education (2000). *Survey of College Credit Opportunities Available to Connecticut Secondary School Students*. Hartford, CT: Author.
[12] Data Source: Connecticut Community College System.

opportunities available to Connecticut secondary school students. Table 12 represents the responses from all institutions regarding courses other than Advanced Placement, Tech Prep, the University of Connecticut High School Cooperative Program, and the Connecticut Community College System High School Partnership. The enrollment figures cover both Fall 1999 and Spring 2000 semesters. As there are students enrolled both in the Fall 1999 and Spring 2000 semesters and they may have also cross-enrolled in different programs, the figures are inevitably duplicated. The actual head count of students who participated is less than the numbers presented.

These responses indicated that Connecticut colleges and universities had 833 high school student enrollments in the 1999-2000 school year, representing 11% of the total 8,188 students who enrolled in programs other than the AP Program during the same academic year. It should be noted that some of the special cohort programs were grant supported. These programs may end when the grant funds are exhausted.

Table 12. Other institutional programs and their enrollments in 1999-2000 academic year

| Category | Institution | Program Name | Enrollments (Duplicated) | Program Type | |
|---|---|---|---|---|---|
| | | | | Enrollment in Regular Lower Division Courses Per Agreement Between School and Institution | Special Cohort Programs |
| Public Four-Year Institutions | Central Connecticut State University | Global Citizenship | 30 | | X |
| | Eastern Connecticut State University* | High School Incentive Program | 39 | X | |
| | | Summer Institute for Future Teachers | 47 | | X |
| | Southern Connecticut State University | Hillhouse High School Minority Teacher Program | 8 | | X |
| | | Masuk High School | 19 | X | |
| | | New Haven High School | 80 | X | |
| | Western Connecticut State University | Non-AP Sociology | 83 | X | |
| | | Non-AP Music | 4 | | X |
| | University of Connecticut Health Center | Pre-College Enrichment Program | 14 | | X |
| | **Subtotal** | | **324** | | |
| Public Two-Year Institutions | Norwalk Community College | Rippowam | 50 | | X |
| | **Subtotal** | | **50** | | |
| Independent Two-Year Institution | Saint Vincent's College | College Before College | 8 | X | |
| | **Subtotal** | | **8** | | |
| Independent Four-Year Institution | Albertus Magnus College | College Before College | 2 | X | |
| | Connecticut College | New London Schools | 26 | X | |
| | Fairfield University | Math Counts | 4 | X | |
| | Quinnipiac University | Office of Part Time Admissions | 4 | X | |
| | Sacred Heart University | Taste of College | 17 | X | |
| | | School Programs | 96 | X | |
| | | BET | 121 | | X |
| | Saint Joseph College | Challenge | 6 | X | |
| | Trinity College | Special Students | 11 | X | |
| | University of Bridgeport | School to Career Grant | 44 | | X |
| | | New Eden-Park City Alternative | 57 | | X |
| | | Non Matriculate Enrollment by High School Students | 14 | X | |
| | University of Hartford | College NOW | 45 | X | |
| | Wesleyan University | High School Scholars | 4 | X | |
| | Yale University** | No Program Reported | | | |
| | **Subtotal** | | **451** | | |
| **Total** | | | **833** | | |

*Source: Connecticut Department of Higher Education Survey of College Credit Opportunities Available to Connecticut Secondary School Students*

*Eastern Connecticut State University has also reported that it established a "Teacher Cadet" program with the Hartford Public Schools in 2001.

** Yale University has established a program working with students from New Haven area schools.



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## DISCUSSIONS

**Research Question 3: What further research steps need to be taken to have a more comprehensive understanding of the issue?**

It is evident that the number of high school students receiving college level credits is growing in the state. The majority of students participated in the three largest programs—AP, Tech Prep, and the University of Connecticut High School Cooperative Programs. The cost of all collegiate programs for high school students is low. The AP Program charges $78 per examination and the public schools offer free preparation courses administered by the College Board. The Tech Prep program has been supported by the federal Carl D. Perkins Grant and bears no cost for the students. Except for the open unrestricted part-time non-matriculating enrollment permitted by most institutions when students pay the regular tuition and fees, the institutional programs range from free to $100 per course. Some institutional programs have enjoyed a relatively long history, such as the Challenge Program at Saint Joseph College (27 years), the University of Connecticut High School Cooperative Program (47 years), and the University of Hartford College Now Program (20 years).

The Connecticut State Department of Education collects data on Connecticut public high school students receiving college-level course credits through its annual secondary school graduation report (ED 540). It also prepares an annual report on the AP Program. Although ED 540 reports the unduplicated number of high school students receiving college credits, these numbers are not disaggregated by the AP Program, Tech Prep, and institutional programs. Such disaggregation may be difficult to achieve as students can not only cross enroll within each type of program but also may cross enroll across all types of programs.

This study has also found that few institutions collect disaggregated data on students participating in institutional programs. In addition, public schools and colleges have not tracked individual students who have earned college credits to see what happened to them after their high school graduations, especially to see if their earned credits are accepted by the colleges and universities in which they enroll. There is no data indicating whether Connecticut high school students who received college credits performed better after entering institutions of higher education. The state's data reality echoes NCES's description that there is "little known" about these students and there has been "a hodgepodge approach without a sense of larger vision."[13]

Connecticut is a state of dramatic contrasts. In the state's affluent suburban communities, support for education is strong and students achieve at high levels. Conversely, in the largest, most impoverished urban districts, where over 80% of the students are minorities, student performance is well below the state average. Alarming dropout rates and poor test scores among urban school children and the testimony in the recent *Sheff v. O'Neill*[14] school desegregation court case in Connecticut all serve to document the need to improve education for all urban children. Future data should present a clearer picture of how each type of collegiate opportunity affects students in high-need schools by tracking participants from these schools to examine their college degree completion success.

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[13] National Center for Education Statistics (NCES, 1999). *Issue brief: Students who prepare for college and a vocation*. Washington, DC: U. S. Department of Education, Office of Educational Research and Improvement. P. 1.
[14] *Sheff v. O'Neill*, 238 Conn. 1, 678 A.2d 1267 (1996).

In order to enhance the understanding of how well the state's P-12 education is aligned with the higher education system in Connecticut, one fundamental question remains: Do any of these collegiate educational opportunities make a difference for students when they transition from high school to college? Some additional research questions could be:

- Do college graduates who completed college-level courses in high school perform better in college than those who have not participated in college-level courses in high school?
- Do high school students who have successfully completed college-level courses finish their college studies in a shorter time frame and with less financial burden than those who have not participated in college-level courses?
- Is the rate of enrollment in remedial courses lower for those high school student who have successfully completed college-level courses than those who have not participated in college-level courses?

Because data to answer these questions are currently not available, the Board of Governors for Higher Education should determine whether the information gathered so far is sufficient enough to have an overall picture of the collegiate opportunities for high school students in Connecticut, and whether it is time for the state to have a clearly articulated policy on college credits earned in high schools. If the Board determines that further longitudinal studies are necessary, it should encourage the Connecticut Department of Higher Education and the Connecticut State Department of Education to continue their collaboration and to collect appropriate data which can address these questions.

**U.S. Department of Education**
*Office of Educational Research and Improvement (OERI)*
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